

has upheld license modifications that involve relocating existing licensees to different spectrum, outside of the auction process. Specifically, the court has found that the Commission may approve spectrum swaps between existing licensees, without offering the swapped spectrum to alternative users.²⁸⁵

123. Pursuant to Section 316 of the Act, we find that the public interest, convenience, and necessity will be served by relocating all existing Guard Band A Block licenses to the reconfigured Guard Band A Block located at 757-758 MHz and 787-788 MHz.²⁸⁶ With the exception of PTPMS II, which holds one A Block license and two B Block licenses, the license modifications that we effect today are consensual. Specifically, in July 6 and 26, 2007 *ex parte* letters, officers of Access Spectrum, Dominion 700, Pegasus, and Radiofone each agreed that the licensees will not contest the modification of their licenses as described above.²⁸⁷

124. We find that modifying the 700 MHz Guard Bands licenses will serve the public interest, convenience, and necessity in four respects. First, it will enable the downward spectrum shift that protects public safety narrowband operations from interference in certain border areas. Second, “repacking” the existing Guard Band A Block licenses between the Upper 700 MHz Band C and D Blocks will avoid placing a potential obstacle between the two now-contiguous spectrum blocks comprising the 700 MHz Public/Private Partnership. Third, we will realize these benefits for public safety and the 700 MHz Public/Private Partnership with the least disruption possible to the use of the Upper 700 MHz spectrum. Finally, the spectrum repacking will provide an additional 2 megahertz of commercial spectrum for auction by reducing the current Guard Band B Block from 4 to 2 megahertz.

125. These license modifications also are consistent with Sections 337 and 309 of the Act, because the 4 megahertz of remaining Guard Bands spectrum remains commercial spectrum subject to auction.²⁸⁸ Specifically, the 2 megahertz at 746-747 MHz and 776-777 MHz will be added to, and auctioned as part of, the Upper 700 MHz Band C Block in the forthcoming 700 MHz Band auction. The lower portion of the reconfigured commercial Guard Band B Block at 775-776 MHz will provide a necessary guard band between public safety narrowband communications and adjacent commercial services. The Commission will specify appropriate uses of this spectrum, and the related portion of the B Block at 805-806 MHz, at a future date.

126. *Spectrum Use Agreements.* Access Spectrum states that, pursuant to existing spectrum use agreements (SUAs), there are wireless systems currently operating in six of its licensed Guard Band

²⁸⁵ See *Rainbow Broadcasting v. FCC*, 949 F.2d 405, 410 (D.C. Cir. 1991), in which the court held the Commission had the authority to allow noncommercial and commercial television licensees to exchange channels without exposing licensees to competing applications, despite third-party interest in acquiring the swapped licenses.

²⁸⁶ See 47 U.S.C. § 316(a)(1) (“[a]ny station license . . . may be modified by the Commission . . . if in the judgment of the Commission such action will promote the public interest, convenience and necessity”). The U.S. Court of Appeals for the District of Columbia Circuit has held that “Section 316 grants the Commission broad power to modify licenses; [and] the Commission need only find that the proposed modification serves the public interest, convenience and necessity.” *California Metro Mobile Communications v. FCC*, 365 F.3d 38, 45 (D.C. Cir. 2004). The court found that Section 316 is not unambiguous and therefore deferred to the Commission’s interpretation that “section 316 contains no limitation on the time frame within which it may act to modify a license and that its action under the section is not subject to the limitations on revocation, modification or reconsideration imposed by [s]ection 405.” *Id.* at 45 (citations omitted). The court also found that the Commission’s modification served the public interest, even though the modification was based on potential rather than actual interference, and it caused a minor disruption in CMMC’s operations. *Id.* at 46.

²⁸⁷ See Access Spectrum/Pegasus July 6, 2007 *Ex Parte*; Access Spectrum/Pegasus July 26, 2007 *Ex Parte*.

²⁸⁸ 47 U.S.C. §§ 337, 309.

A Block markets (MEAs 20, 26, 32, 37, 44, and 52).²⁸⁹ Access Spectrum intends to transition these systems to the relocated Guard Band A Block, and requests special temporary authority (STA) for the current A Block in these MEAs to effect such a transition.²⁹⁰ In MEA 20 (Minnesota), Access Spectrum notes that it could take 12 months from release of this Second Report and Order to transition a CII entity's "complex system" to the relocated A Block.²⁹¹

127. We find that the public interest would be served by providing Access Spectrum a reasonable period to transition systems in the six markets to the relocated Guard Band A Block. Based on the record before us, it appears that 180 days (the maximum statutory period for an STA) would provide Access Spectrum sufficient time to relocate systems in five of the six MEAs.²⁹² Accordingly, pursuant to Section 309(f) of the Act,²⁹³ we hereby grant Access Spectrum 180-day special temporary authorizations for MEAs 20, 26, 32, 37, 44, and 52 for the current Guard Band A Block (746-747 MHz, 776-777 MHz). We expect Access Spectrum to make a concerted effort to relocate all systems during the 180-day period, including the CII system in MEA 20. In the event that Access Spectrum cannot complete the transition of the CII system during the 180-day period, it may seek an appropriate extension of the STA upon a proper showing. Because we modify (repack and relocate) the Guard Band A Block MEA licenses held by Access Spectrum, Pegasus, and Dominion upon the effective date of this Second Report and Order, the six STA grants to Access Spectrum will be granted upon the effective date as well. We address the disposition of the one remaining Guard Band A Block license, which is held by PTPMS II, below.

128. *PTPMS II.* In the 700 MHz *Further Notice*, we tentatively concluded not to adopt the Access Spectrum/Pegasus repacking proposal absent unanimity among all Guard Band licensees.²⁹⁴ All of the Guard Band licensees have agreed to repacking except PTPMS II, which prefers to maintain the current position of its licenses.²⁹⁵ Based on the record before us and for the reasons stated above, however, we are convinced that the public interest is better served if we adopt a band plan that accounts for the single licensee that has not voluntarily agreed to spectrum repacking.

129. In the 700 MHz *Further Notice*, we sought comment on grandfathering the incumbent Guard Band B Block licensees, including whether to permit operations under the current technical rules.²⁹⁶ PTPMS II holds one Guard Band A Block license in Buffalo (MEA 003) and B Block licenses in Des Moines – Quad Cities (MEA 021) and El Paso – Albuquerque (MEA 039), but did not join the repacking agreement. To maintain a consistent band plan within the United States that protects

²⁸⁹ See Letter from Gunnar Halley, Counsel to Access Spectrum, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86, 06-150, 06-169, PS Docket No. 06-229 (filed July 24, 2007) ("Access Spectrum July 24, 2007 *Ex Parte*").

²⁹⁰ See Access Spectrum/Arcadian July 27, 2007 *Ex Parte*. Access initially requested primary authorization for these markets until grant of the Upper 700 MHz C Block license, followed by secondary authorization through February 17, 2009 (the DTV transition date). See Access Spectrum July 24, 2007 *Ex Parte*.

²⁹¹ *Id.*

²⁹² Access Spectrum states that it does not intend to renew the SUAs for MEA 52 (Gulf of Mexico) and MEA 32 (Dallas), which expire April 16 and August 31, 2008, respectively, at their current spectral locations, and that it will expeditiously relocate "relatively modest" systems in MEA 26 (Memphis), MEA 37 (Oklahoma City), and MEA 44 (where its customer operates a system in the Las Vegas area) once the associated equipment has been authorized for use by the Commission. Access Spectrum July 24, 2007 *Ex Parte* at 1-2.

²⁹³ 47 U.S.C. § 309(f).

²⁹⁴ See 700 MHz *Further Notice*, 22 FCC Rcd at 8137 ¶ 199.

²⁹⁵ See Access Spectrum/Pegasus Reply Comments in WT Docket No. 06-169 at 8.

²⁹⁶ See 700 MHz *Further Notice*, 22 FCC Rcd at 8132-33 ¶ 186.

reconfigured public safety narrowband operations from interference, we find that the public interest, convenience, and necessity will be served by modifying the PTPMS II licenses by shifting its Guard Band A Block license to the reconfigured A Block in the same geographic service area, and shifting its B Block licenses downward 1 megahertz.

130. On July 6, 2007, PTPMS II filed an *ex parte* in which it generally argued that modification of its licenses would be contrary to the public interest.²⁹⁷ Among other things, PTPMS II argued that “[t]he record is not clear that there are demonstrable public interest benefits that would flow from” modification of its licenses.²⁹⁸ We disagree. The protection of public safety is at the core of the Commission’s public interest obligations.²⁹⁹ The band plan that we are implementing today will enable the downward 1-megahertz band shift necessary to prevent interference to vital public safety communications in border areas. If we do not modify the PTPMS II licenses, the 1-megahertz spectrum shift that solves interference problems for reconfigured public safety narrowband operations in the border areas cannot be accomplished. Moreover, if PTPMS II’s B Block licenses were to remain in their current spectral location, their resulting overlap of public safety spectrum would create interference between the services.³⁰⁰ In addition, if the Guard Band A Block license in Buffalo does not move from 746-747 MHz and 775-776 MHz, a uniform shift of the Upper 700 MHz band plan cannot occur, frustrating what we have determined to be the optimal band plan for the Upper 700 MHz Band.

131. To ensure that critical interoperable public safety communications are uniform throughout the continental United States, we hereby modify PTPMS II’s Guard Band A Block license in Buffalo (MEA 003), pursuant to Sections 316, 303, 301, and 4(i) of the Act,³⁰¹ to operate in the same geographic area but in the reconfigured A Block at 757-758 MHz and 787-788 MHz. We also modify PTPMS II’s B Block licenses in Des Moines – Quad Cities (MEA 021) and El Paso – Albuquerque (MEA 039) by shifting them down by 1 megahertz, so that PTPMS II is authorized to operate at 761-763 MHz and 791-793 MHz. These modifications will not burden PTPMS II because it will continue to have access to the same amount and quality of spectrum, and the move within the band will not require any modification of deployed equipment, since PTPMS II does not have any operations associated with the three licenses.³⁰²

132. As a result of the foregoing modifications, the new nationwide Upper 700 MHz Band D Block license, at 758-763 MHz and 788-793 MHz, will be authorized in Des Moines – Quad Cities (MEA 021) and El Paso – Albuquerque (MEA 039) on a secondary basis to PTPMS II. As such, the D Block licensee may not cause interference to primary operations of PTPMS II or claim protection from harmful interference from any operations of PTPMS II in those MEAs.³⁰³ The D Block licensee must cease operations on the spectrum assigned to PTPMS II in these two markets if it poses an interference problem to PTPMS II. In the event that PTPMS II, or a successor or an assign of PTPMS II, elects to cancel either of its grandfathered licenses, or if either license cancels automatically, or is terminated by the Commission, then the licensed geographic area will revert, without further action by the Commission, to

²⁹⁷ See PTPMS II July 6, 2007 *Ex Parte* at 2.

²⁹⁸ *Id.* at 3-4.

²⁹⁹ See Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, *Report and Order*, 19 FCC Rcd 14969, 14971 ¶ 1 (2004) (“800 MHz *Report and Order*”).

³⁰⁰ See 700 MHz *Further Notice*, 22 FCC Rcd at 8137 ¶ 199.

³⁰¹ 47 U.S.C §§ 316, 303, 301, 154(i).

³⁰² See PTPMS II Guard Band Manager’s Annual Report, available at http://wireless.fcc.gov/services/index.htm?job=guardband_reports&id=700_guard.

³⁰³ 47 C.F.R. § 2.105(c)(2).

the D Block licensee. This reversionary interest will include the right to operate under the technical rules consistent with those that apply to the remainder of the D Block license.

133. However, as explained elsewhere in this Second Report and Order, we do not believe it is in the public interest to permit these two grandfathered licenses to operate indefinitely under a technical regime that is potentially incompatible with the D Block or the adjacent Public Safety Broadband Licensee. Nor do we find that the public interest would be served by permitting PTPMS II to operate indefinitely within the D Block, and thus impede the provision of broadband public safety operations in the populous Des Moines – Quad Cities (MEA 021) and El Paso – Albuquerque (MEA 039) markets to the detriment of the American public. We therefore grandfather PTPMS II's two B Block licenses without any renewal expectancy, and do not extend the term of its licenses as we have for the D Block (discussed below). We will afford PTPMS II's Guard Band A Block license the modified (less stringent) technical rules that we adopt below for all other Guard Band A Block licenses.

134. Accordingly, pursuant to Section 316 of the Act and Section 1.87 of the Commission's rules,³⁰⁴ PTPMS II has 30 days from the effective date of this Second Report and Order to protest the foregoing license modifications. Consistent with the July 6 and 26, 2007 *Ex Partes*, no protest rights will be afforded to any other Guard Band licensee.³⁰⁵

(b) Broadband Optimization Plan (BOP), Critical Infrastructure Industries (CII) and Ericsson Proposals

135. Background. In Section 337(a) of the Act, Congress mandated that the Commission allocate "spectrum between 746 MHz and 806 MHz, inclusive" (*i.e.*, the Upper 700 MHz Band) by designating 24 megahertz of the spectrum "for public safety services" and 36 megahertz "for commercial use to be assigned by competitive bidding pursuant to Section 309(j)."³⁰⁶ As directed by Congress, the Commission allocated 24 megahertz of this spectrum for public safety use at 764-776 MHz and 794-806 MHz and 36 megahertz of this spectrum for commercial use at 746-764 MHz and 776-794 MHz.³⁰⁷ In deciding whether or not to allow commercial operations inside the Guard Bands, the Commission concluded that it was constrained by Congress' clear mandate to allocate, and thus auction, a full 36

³⁰⁴ 47 U.S.C. § 316; 47 C.F.R. § 1.87.

³⁰⁵ See Access Spectrum/Pegasus July 6, 2007 *Ex Parte*; Access Spectrum/Pegasus July 26, 2007 *Ex Parte*.

³⁰⁶ 47 U.S.C. § 337(a), as enacted by the Balanced Budget Act of 1997, Pub. L. No. 105-33, Title III, 111 Stat. 251 (1997). Section 337(a) provides in pertinent part:

(a) . . . the Commission shall allocate the electromagnetic spectrum between 746 megahertz and 806 megahertz, inclusive, as follows:

(1) 24 megahertz of that spectrum for public safety services according to the terms and conditions established by the Commission, in consultation with the Secretary of Commerce and the Attorney General; and
(2) 36 megahertz of that spectrum for commercial use to be assigned by competitive bidding pursuant to Section 309(j).

Congress also established a deadline of January 1, 1998 for this allocation, as well as a deadline of September 30, 1998 for assignment of the public safety licenses. See 47 U.S.C. § 337(b). On December 31, 1997, the Commission released an Order fulfilling Congress' allocation directive. See Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Report and Order*, 12 FCC Rcd 22953, 22962 ¶ 17 (1998).

³⁰⁷ Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Report and Order*, 12 FCC Rcd 22953 (1997). The commercial portion at 746-764 MHz and 776-794 MHz includes the two blocks of paired Guard Bands spectrum at 746-747 MHz and 776-777 MHz, and 762-764 MHz and 792-794 MHz.

megahertz of commercial spectrum in the Upper 700 MHz Band.³⁰⁸ If the Commission had decided to prohibit operations inside the Guard Bands, it would have fallen 6 megahertz short of fulfilling the explicit allocation requirement in Section 337(a).³⁰⁹ In light of this statutory mandate, we tentatively concluded in the *Further Notice* that the Commission should not adopt the BOP, or other proposals to the extent that they propose a reallocation of commercial spectrum for public safety use, or the reassignment of this spectrum outside of the competitive bidding process.³¹⁰ We also tentatively concluded that even if the Commission possessed legal authority to adopt the BOP, Ericsson, or CII proposals, they would not be in the public interest.³¹¹

136. Discussion. For the reasons discussed in the *700 MHz Further Notice*, we adopt our tentative conclusion that we cannot adopt the BOP, Ericsson, or CII proposals. First, we find that Congress's express instructions in Section 337 regarding our allocation of commercial and public safety spectrum in the 700 MHz Band statutorily prohibit the Commission from reallocating the spectrum at this time, and therefore we cannot reallocate commercial spectrum for public safety as contemplated by the BOP and Ericsson proposals. Even if Section 337(a) does not establish a permanent legislative bar on reallocating the Upper 700 MHz Band, we nevertheless conclude that it would be contrary to Congress' intent in enacting Section 337 to consider modifying the commercial and public safety allocations in the band at this time, before the licensees have had a meaningful opportunity to use unencumbered spectrum as initially envisioned (an opportunity that is unlikely to be fully available before the end of the DTV transition in 2009).³¹²

137. Similarly, because Section 337 requires us to use a competitive bidding process to assign spectrum that has been allocated for commercial use, we must also deny the BOP's proposal to reassign 1 megahertz from the Guard Band B Block to the current Guard Band A Block licensees, and the CII proposals to award Guard Band B Block licenses within our inventory to their constituents outside of competitive bidding. As noted above, Section 337(a)(2) prescribes competitive bidding as the method of assigning commercial spectrum in the Upper 700 MHz Band.³¹³ For the same reasons that we cannot reallocate the band at this time, we also conclude that we cannot alter the method of assignment at this time, and thus on this basis also we must deny the BOP and CII proposals. We note that the proposal adopted by the Commission today does not possess the same legal infirmity because it does not involve the assignment of spectrum from the Commission's auction inventory outside of the competitive bidding process.

138. With respect to the BOP, even if we had legal authority to assign additional spectrum to the current Guard Band A Block licensees without competitive bidding, we conclude that the proposals for assigning commercial spectrum licenses in this manner would not serve the public interest. Under the BOP, the Guard Band A Block licensees would receive an additional 1 megahertz of spectrum outside of the auctions process. Given that we lack authority to assign additional Upper 700 MHz Band spectrum to public safety as contemplated by the BOP, there is no unique or compelling reason in the record to award

³⁰⁸ See *Upper 700 MHz Second Report and Order*, 15 FCC Rcd at 5316-19 ¶¶ 36-40.

³⁰⁹ *Id.*

³¹⁰ *700 MHz Further Notice*, 22 FCC Rcd at 8147 ¶ 227.

³¹¹ *Id.* The Commission added that the BOP could also result in interference between 700 MHz Band public safety and commercial operations. *Id.*

³¹² If, in contrast, these proponents' reading of Section 337 is incorrect, and the statutory language in fact requires the Commission to maintain the specified 24/36 megahertz allocations in perpetuity (barring future legislative action), the result would be the same: the statute would prohibit us from altering these allocations at this time.

³¹³ 47 U.S.C. § 337(a)(2).

the BOP proponents additional commercial spectrum in the 700 MHz Band outside of the competitive bidding process. Moreover, we believe that any residual benefits associated with the BOP plan are not unique to the BOP and can be achieved through the Commission's established spectrum management mechanisms. Similarly, we find that the CII proposals would not serve the public interest because they include an assignment of commercial spectrum to licensees outside of the competitive bidding process.³¹⁴ *Although we recognize the potential for CII entities to engage in life-critical communications, we do not find a sufficient public interest rationale for creating any exception in the 700 MHz Band from the current, established practice of subjecting CII to competitive bidding for spectrum that serves their commercial infrastructures.*

139. Finally, we conclude that the additional Ericsson band plan proposal is not in the public interest. We believe that the band plan we are adopting today better addresses the need for the establishment of a large, continuous block of paired 11-megahertz spectrum, as compared to the Ericsson proposal. We believe that retaining the B Block and merely moving its location is not the most efficient use of spectrum, given our finding that the B Block at its current location is no longer necessary as a guard band and should be subsumed into the 700 MHz Band commercial spectrum to be auctioned.

2. Service Rules

a. Commercial Services (Excluding Guard Bands and Upper 700 MHz D Block)

(i) Performance Requirements

140. Background. The Commission first adopted performance requirements for the commercial services in the Upper 700 MHz Band, and then subsequently followed with similar rules for the Lower 700 MHz Band. In the *Upper 700 MHz First Report and Order*, the Commission required that licensees in the 746-764 and 776-794 MHz Bands provide "substantial service," as outlined in Section 27.14(a) of its rules.³¹⁵ These rules require licensees to provide "substantial service" within ten years of license issuance.³¹⁶ The *Upper 700 MHz First Report and Order* also established safe harbors for licensees with regard to the substantial service requirement. Specifically, a licensee would be considered to be providing "substantial service" in the licensed service area if it constructs four permanent links per one million people (when fixed, point-to-point service is offered) or if it demonstrates coverage of 20 percent of the population (when the licensee offers either mobile services or fixed, point-to-point service).³¹⁷ For the Lower 700 MHz Band, the Commission also adopted the substantial service standard with the same safe harbors in the *Lower 700 MHz Report and Order*.³¹⁸ In addition, in the *Rural Report and Order*, the Commission established a safe harbor for substantial service related to the provision of mobile telephony service in rural areas. In that Order, the Commission stated that a licensee providing mobile service in certain bands, including the 700 MHz Band, "will be deemed to have met the substantial service requirement if it provides coverage to at least 75 percent of the geographic areas of at least 20 percent of the 'rural areas' within its licensed area."³¹⁹ As with all Wireless Radio Service licenses, failure to meet the specified performance requirements under the particular license authorization

³¹⁴ As we expressed in the *700 MHz Further Notice*, CII entities are eligible to participate in future auctions for spectrum in the 700 MHz Band. See *700 MHz Further Notice*, 22 FCC Rcd at 8149 ¶ 233 n.491.

³¹⁵ *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505-506 ¶¶ 70-72.

³¹⁶ 47 C.F.R. § 27.14(a). This section defines "substantial service" as "service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal." *Id.*

³¹⁷ See *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 505 ¶ 70.

³¹⁸ See *Lower 700 MHz Report and Order*, 17 FCC Rcd at 1079 ¶¶ 149-151.

³¹⁹ *Rural Report and Order*, 19 FCC Rcd at 19123 ¶ 79.

within the required period results in automatic license termination.³²⁰

141. *700 MHz Commercial Services Notice*. In 2006, in the *700 MHz Commercial Services Notice*, we sought comment on whether we should revise these existing performance requirements, or adopt alternative build-out rules, for licenses in the 700 MHz Band that have not been auctioned in order to promote access to spectrum and the provision of service to consumers.³²¹ In particular, we asked for comment on the effectiveness of the existing substantial service standard and safe harbors and whether changes or revisions should be adopted to better promote service, especially in rural areas.³²² The *700 MHz Commercial Services Notice* also asked commenters to address whether the Commission should adopt alternative performance requirements, such as benchmarks based on the population or geographic area within a license area, instead of the substantial service standard.³²³ In addition, we asked for comment on whether our performance requirements should include a “keep-what-you-use” rule similar to that applied to cellular service in the 1980s, or a slightly modified version called “triggered keep-what-you-use.”³²⁴

142. In response to the *700 MHz Commercial Services Notice*, commenters offered a variety of arguments on the issue of performance requirements. Most of the parties that commented on this issue opposed replacing the substantial service standard with a stricter performance requirement. These parties included a mix of large, medium, and small CMRS providers, as well as two providers of broadband technology.³²⁵ On the other hand, a number of other parties strongly supported a “keep-what-you-use” approach, including rural CMRS providers, a tribal government, and a coalition of state government agencies.³²⁶ In addition, some commenters argued in favor of construction benchmarks based on the population or geographic area served, and some of these parties also recommended a combination of both benchmarks and a “keep-what-you-use” approach.³²⁷ For example, RCA recommended a combination of

³²⁰ 47 C.F.R. § 1.946(c).

³²¹ *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9373-76 ¶¶ 60-69.

³²² *Id.* at ¶ 62-63.

³²³ *Id.* at ¶ 64-66.

³²⁴ *Id.* at ¶ 67-69.

³²⁵ See, e.g., AT&T *700 MHz Commercial Services Notice* Comments at 12-16; AT&T *700 MHz Commercial Services Notice* Reply Comments at 21-24; CTIA *700 MHz Commercial Services Notice* Comments at 7-16; Cingular *700 MHz Commercial Services Notice* Comments at 9-13; Corr *700 MHz Commercial Services Notice* Comments at 5-8; Dobson *700 MHz Commercial Services Notice* Comments at 5-10; Leap *700 MHz Commercial Services Notice* Comments at 9-10; Leap *700 MHz Commercial Services Notice* Reply Comments at 5-6; MetroPCS *700 MHz Commercial Services Notice* Comments at 15-16; MetroPCS *700 MHz Commercial Services Notice* Reply Comments at 10-12; MilkyWay *700 MHz Commercial Services Notice* Comments at 7-9; NextWave *700 MHz Commercial Services Notice* Reply Comments at 14; Qualcomm *700 MHz Commercial Services Notice* Comments at 19; Union Telephone *700 MHz Commercial Services Notice* Comments at 5-6; U.S. Cellular *700 MHz Commercial Services Notice* Comments at 12-16; U.S. Cellular *700 MHz Commercial Services Notice* Reply Comments at 11-16; Verizon Wireless *700 MHz Commercial Services Notice* Comments at 6-9.

³²⁶ See, e.g., Howard/Javed *700 MHz Commercial Services Notice* Comments at 24-26; Navajo Nation *700 MHz Commercial Services Notice* Comments at 2-3; OPASTCO *700 MHz Commercial Services Notice* Comments at 5-6; RCA *700 MHz Commercial Services Notice* Comments at 8-10; RCA *700 MHz Commercial Services Notice* Reply Comments at 4-7; RTG *700 MHz Commercial Services Notice* Comments at 8-9; Vermont Department of Public Service *et al.* *700 MHz Commercial Services Notice* Comments at 5-10; Vermont Department of Public Service *et al.* *700 MHz Commercial Services Notice* Reply Comments at 4-7.

³²⁷ See, e.g., DIRECTV/EchoStar *700 MHz Commercial Services Notice* Comments at 9; Navajo Nation *700 MHz Commercial Services Notice* Comments at 2-3; RCA *700 MHz Commercial Services Notice* Comments at 8-10; RCA *700 MHz Commercial Services Notice* Reply Comments at 4-7; Vermont Department of Public Service, *et al.* (continued....)

both geographic benchmarks and a “keep-what-you-use” rule.³²⁸ A related proposal by the Vermont Department of Public Service *et al.* included a combination of population or geographic benchmarks and a “keep-what-you-use” rule.³²⁹ Other commenters argued that the Commission should allow third parties to access the unused portions of a licensee’s spectrum on a non-interfering basis.³³⁰ These commenters referred to the *TV White Spaces Report and Order*,³³¹ in which the Commission allowed for unlicensed use of spectrum in the core TV broadcast bands, and they argued that the Commission also should allow such use in the 700 MHz Band.³³² Other commenters specifically opposed permitting this type of unlicensed use in the 700 MHz Band.³³³

143. *700 MHz Further Notice.* More recently, in the *700 MHz Further Notice*, we sought comment on the performance requirements for commercial licensees in the 700 MHz Band and asked commenters to address specific approaches.³³⁴ As a basis for consideration of this issue, we asked for comment on our proposal to adopt a modified version of a recommendation by RCA, which would apply both performance requirements based on geographic benchmarks and a “keep-what-you-use” rule.³³⁵ We proposed that licensees be required to provide service that covers 25 percent of the geographic area of the license area within three years, 50 percent of the area within five years, and 75 percent of the area within eight years.³³⁶ We further proposed that, in applying such a geographic benchmark, we would consider the relevant service area to exclude all government land.³³⁷

144. We also asked commenters to address the potential consequences for licensees that fail to meet their interim and end-of-term build-out requirements.³³⁸ We observed that the consequences for failure to meet an interim benchmark could include a reduction in the length of the license term.³³⁹ In addition, we sought comment on RCA’s recommendation that licensees that fail to meet an interim benchmark face a “proportionate” application of the “keep-what-you-use” rule, in which a license area would be reduced sufficiently to create a resulting license in which the licensee meets the relevant

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700 MHz Commercial Services Notice Comments at 5-8. The Navajo Nation, RCA, and the Vermont Department of Public Service, *et al.* favorably discuss both benchmarks and a “keep-what-you-use” approach.

³²⁸ See RCA *700 MHz Commercial Services Notice* Comments at 8-10; RCA *700 MHz Commercial Services Notice* Reply Comments at 4-8.

³²⁹ See Vermont Department of Public Service, *et al.* *700 MHz Commercial Services Notice* Comments at 5-8.

³³⁰ See, e.g., Howard/Javed *700 MHz Commercial Services Notice* Comments at 31-37; NextWave *700 MHz Commercial Services Notice* Reply Comments in WT Docket No. 06-150 at 9-12 (supporting rules allowing unlicensed use on a secondary basis); Tropos Comments in WT Docket No. 06-150 at 9-11 (recommending bands designated for unlicensed use).

³³¹ Unlicensed Operation in the TV Broadcast Bands, Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, ET Docket No. 04-186, *First Report and Order and Further Notice of Proposed Rulemaking*, 21 FCC Rcd 12266 (2006) (*TV White Spaces Report and Order*).

³³² See Howard/Javed *700 MHz Commercial Services Notice* Comments at 31-37; NextWave *700 MHz Commercial Services Notice* Reply Comments at 9-12.

³³³ See CTIA *700 MHz Commercial Services Notice* Reply Comments at 11.

³³⁴ See *700 MHz Further Notice*, 22 FCC Rcd at 8140-43 ¶¶ 207-220.

³³⁵ See *700 MHz Further Notice*, 22 FCC Rcd at 8142 ¶ 212.

³³⁶ See *id.*

³³⁷ See *700 MHz Further Notice*, 22 FCC Rcd at 8142 ¶ 213.

³³⁸ *Id.* at 8142-43 ¶¶ 214-15.

³³⁹ *Id.* at 8142 ¶ 214.

benchmark.³⁴⁰ With regard to end-of-term build-out requirements, we sought comment on whether we should apply a “keep-what-you-use” rule.³⁴¹ We specifically asked that commenters address how the Commission might apply such a rule.³⁴² We noted that the Commission could apply a “keep-what-you-use” rule regardless of the level of construction by the licensee, or it could apply such a rule only in the event a licensee failed to meet a specific coverage requirement.³⁴³

145. We also proposed to apply performance requirements only on an EA or CMA basis and sought comment on this approach. We noted that this proposal would require REAG licensees to meet the service benchmarks on an EA basis, and that failure to do so in a particular EA would result in a loss of a portion of the geographic area in that EA.³⁴⁴ Finally, we asked for comment on any other proposal that would apply build-out requirements that would be more stringent than the current substantial service standard. In particular, we asked if population benchmarks should be used instead of geographic benchmarks.³⁴⁵

146. In response to the *700 MHz Further Notice*, commenters take a variety of positions with regard to performance requirements. A broad mix of commenters urge the Commission to continue to utilize its substantial service criteria.³⁴⁶ This mix of commenters includes nationwide, regional, and small and rural service providers,³⁴⁷ industry trade groups,³⁴⁸ and potential new entrants.³⁴⁹ These commenters contend that a substantial service rule is consistent with prior Commission pronouncements, promotes flexibility, relies on market forces, and that there has been no showing of a problem related to lack of construction or spectrum warehousing that would necessitate more stringent performance criteria. Leap observes that the Commission previously has determined that a substantial service standard has important advantages, such as allowing the Commission to take into consideration the provision of service to rural areas, niche markets, or discrete populations.³⁵⁰ Similarly, Union notes that the Commission previously has stated that a substantial service standard provides flexibility for rural providers to tailor business plans

³⁴⁰ *Id.*

³⁴¹ *Id.* at 8142 ¶ 215.

³⁴² *Id.* at 8142-43 ¶ 215.

³⁴³ See *700 MHz Further Notice*, 22 FCC Rcd at 8142 ¶ 214.

³⁴⁴ See *700 MHz Further Notice*, 22 FCC Rcd at 8143 ¶ 217.

³⁴⁵ See *700 MHz Further Notice*, 22 FCC Rcd at 8143 ¶ 220.

³⁴⁶ See, e.g., 4G Coalition *700 MHz Further Notice* Comments at 12-20; AT&T *700 MHz Further Notice* Comments at 14-17; Blooston *700 MHz Further Notice* Comments at 7-9; Council Tree *700 MHz Further Notice* Comments at 12-15; CTIA *700 MHz Further Notice* Comments at 3-10; Dobson *700 MHz Further Notice* Comments at 3; Leap *700 MHz Further Notice* Comments at 5-7; McBride *700 MHz Further Notice* Comments at 16-17; MetroPCS *700 MHz Further Notice* Comments at 29-38; RTG *700 MHz Further Notice* Comments at 8-12; SpectrumCo *700 MHz Further Notice* Comments at 20-30; TIA *700 MHz Further Notice* Comments at 7-8; Union *700 MHz Further Notice* Comments at 8; USCC *700 MHz Further Notice* Comments at 14-19; Verizon Wireless *700 MHz Further Notice* Comments at 19-31.

³⁴⁷ See Blooston *700 MHz Further Notice* Comments at 7-9; Dobson *700 MHz Further Notice* Comments at 3-6; Leap *700 MHz Further Notice* Comments at 5-7; Union *700 MHz Further Notice* Comments at 10; AT&T *700 MHz Further Notice* Comments at 15; U.S. Cellular *700 MHz Further Notice* Comments at 14-19; Verizon Wireless *700 MHz Further Notice* Comments at 28-30.

³⁴⁸ See CTIA *700 MHz Further Notice* Comments at 10; TIA *700 MHz Further Notice* Comments at 7-8.

³⁴⁹ See 4G Coalition *700 MHz Further Notice* Comments at 12-14, 16-18; SpectrumCo *700 MHz Further Notice* Comments at 21-24.

³⁵⁰ See Leap *700 MHz Further Notice* Comments at 6.

for their unique and sparsely populated markets.³⁵¹

147. Other commenters assert that the Commission should impose either a population- or geographic-based build-out requirement, and that this requirement also should include some form of interim benchmarks.³⁵² Parties favoring the use of population-based performance requirements for commercial licenses include a couple of nationwide service providers,³⁵³ a provider of wireless services in rural and suburban areas,³⁵⁴ and an equipment provider.³⁵⁵ For example, AT&T argues that, to the extent it decides to adopt a build-out rule that is more specific than substantial service, the Commission should adopt population-based benchmarks that would be like those applied to initial PCS licenses.³⁵⁶ Verizon Wireless argues that, to the extent it decides to adopt stricter build-out rules, the Commission should adopt population-based benchmarks that require coverage of 50 percent of the population within five years and 75 percent of the population within ten years.³⁵⁷ Dobson recommends that the Commission apply a benchmark for REAG licenses that is based on population, not geography.³⁵⁸

148. Parties favoring geographic-based performance requirements include regional service providers,³⁵⁹ industry trade groups representing rural service providers,³⁶⁰ an organization dedicated to improving 911 service,³⁶¹ and a coalition of state agencies.³⁶² These commenters maintain that the existing substantial service standard is inadequate and does not promote service in rural areas, and that it does not further other Commission goals. RCA and RTG argue that the superior propagation characteristics of the 700 MHz Band make this spectrum especially susceptible to spectrum warehousing, and it concludes that stricter build-out requirements are an appropriate remedy.³⁶³ Similarly, Vermont Department of Public Service *et al.* states that, if the Commission adopts its proposed geographic benchmarks, this will "benefit the public by setting an expectation that licensees will provide service widely throughout the license area, including in more rural areas."³⁶⁴

³⁵¹ See Union 700 MHz Further Notice Comments at 8.

³⁵² See, e.g., 700 MHz Independents 700 MHz Further Notice Comments at 8-10; Aloha 700 MHz Further Notice Comments at 3-4; CCIA 700 MHz Further Notice Comments at 4; Cellular South 700 MHz Further Notice Comments at 3-5; Embarq 700 MHz Further Notice Comments at 5; Frontier 700 MHz Further Notice Comments at 10-12; RCA 700 MHz Further Notice Comments at 11; RTG 700 MHz Further Notice Comments at 8-12; WISPA 700 MHz Further Notice Comments at 12-14; see also RCA 700 MHz Further Notice Reply Comments at 1-11.

³⁵³ See AT&T 700 MHz Further Notice Comments at 19-20; Verizon Wireless 700 MHz Further Notice Comments at 28-30, Attach. A at 4-5, 7.

³⁵⁴ See Dobson 700 MHz Further Notice Comments 6-7.

³⁵⁵ See Motorola 700 MHz Further Notice Comments at 34.

³⁵⁶ See AT&T 700 MHz Further Notice Comments at 19-20.

³⁵⁷ See Verizon Wireless 700 MHz Further Notice Comments at 28-29.

³⁵⁸ See Dobson 700 MHz Further Notice Comments 6-7.

³⁵⁹ See Cellular South 700 MHz Further Notice Comments at 3-8.

³⁶⁰ See RCA 700 MHz Further Notice Reply Comments at 7-8, RTG 700 MHz Further Notice Reply Comments at 8-10.

³⁶¹ See NENA 700 MHz Further Notice Reply Comments at 3.

³⁶² See Vermont Department of Public Service *et al.* 700 MHz Further Notice Reply Comments at 1-3.

³⁶³ See RCA 700 MHz Further Notice Comments at 7-8; RTG 700 MHz Further Notice Comments at 9-12; RCA 700 MHz Further Notice Reply Comments at 7-8, 11; RTG 700 MHz Further Notice Reply Comments at 8.

³⁶⁴ See Vermont Department of Public Service *et al.* 700 MHz Further Notice Reply Comments at 1-2.

149. Some commenters that support either population- or geographic-based construction benchmarks also support the adoption of a “keep-what-you-use” rule.³⁶⁵ These parties state that this approach is pro-competitive, because it allows new providers to acquire unused spectrum, and equitable, because licensees only lose the unused portions of their license area. Those who oppose a “keep-what-you-use” rule argue that such provisions will lead to uneconomic build-out, promote “greenmail,” and chill secondary markets.³⁶⁶ A few commenters argue that, rather than reclaim spectrum, the Commission should designate unserved areas as “vacant channels” that would be usable by unlicensed devices.³⁶⁷

150. In addition, some commenters support the use of the specific interim geographic benchmarks that were proposed in the *700 MHz Further Notice*. For example, RCA specifically favors the application of the proposed performance requirements to all 700 MHz Band licenses to be auctioned.³⁶⁸ Similarly, Vermont Department of Public Service *et al.* recommend the same mix of strict geographic-based benchmarks.³⁶⁹

151. Other commenters expressed concern about the specific interim geographic benchmarks that were proposed in the *700 MHz Further Notice*. If the Commission adopts geographic benchmarks, these parties argue that either any interim benchmark should be longer than three years or a three-year interim benchmark should not apply to rural areas.³⁷⁰ Blooston states that the Commission should not

³⁶⁵ See, e.g., 700 MHz Independents *700 MHz Further Notice* Comments at 8-10 (support adoption of rules similar to those used for licensing unserved cellular areas); PISC *700 MHz Further Notice* Comments at 37 (agrees with the general proposal that licensees should be subject to a “use-or-lose” license condition); Aloha *700 MHz Further Notice* Comments at 4 (supports the general “keep-what-you-use” proposal set forth in the *700 MHz Further Notice*); Blooston *700 MHz Further Notice* Comments at 7-8 (Commission should exempt CMA licenses from “keep-what-you-use” performance criteria); CCIA *700 MHz Further Notice* Comments at 4 (urges the Commission to adopt “keep-what-you-use”); Cellular South *700 MHz Further Notice* Comments at 6 (supports RCA’s proportionate “keep-what-you-use” approach); Dobson *700 MHz Further Notice* Comments at 6-7 (supports use of “keep what you use” relicensing for small-sized service areas only); RCA *700 MHz Further Notice* Comments at 7-8; RTG *700 MHz Further Notice* Comments at 5-7, 9 (supports cellular “keep-what-you-use” procedures); Verizon Wireless *700 MHz Further Notice* Comments at 19-31; Vermont Department of Public Service *et al.* *700 MHz Further Notice* Reply Comments at 1-3.

³⁶⁶ See, e.g., AT&T *700 MHz Further Notice* Comments at 14-17 (“keep-what-you-use” re-licensing approach is inconsistent with long-standing Commission policy); CTIA *700 MHz Further Notice* Comments at 10 (Commission should establish performance requirements similar to AWS performance requirements); Leap *700 MHz Further Notice* Comments at 6 (“keep-what-you-use” could have particularly unfortunate consequences); MetroPCS *700 MHz Further Notice* Comments at 30 (“keep-what-you-use” mechanisms are particularly burdensome for smaller and regional carriers); Motorola *700 MHz Further Notice* Comments at 36 (“keep-what-you-use” creates uncertainty, may chill the auction process, and is not necessary given the competitive nature of the commercial market); SpectrumCo *700 MHz Further Notice* Comments at 20-30 (Commission should not adopt either of the “keep what you use” policy proposals described in the *700 MHz Further Notice*); TIA *700 MHz Further Notice* Comments at 7-8 (Commission should apply the same construction obligations that it has applied in the broadband PCS context); Union *700 MHz Further Notice* Comments at 9 (opposes re-licensing mechanism to reclaim spectrum); USCC *700 MHz Further Notice* Comments at 17-18 (“keep-what-you-use” requirement will create powerful regulatory incentives to engage in economically irrational behavior); WISPA *700 MHz Further Notice* Comments at 12-14 (a licensee that fails to meet the applicable benchmarks should not automatically have its license area reduced, but should face a higher level of scrutiny at the end of its license term).

³⁶⁷ See, e.g., PISC *700 MHz Further Notice* Comments at 37; Google *700 MHz Further Notice* Comments at 9.

³⁶⁸ See RCA *700 MHz Further Notice* Comments at 5.

³⁶⁹ See Vermont Department of Public Service *et al.* *700 MHz Further Notice* Reply Comments at 1-3.

³⁷⁰ See, e.g., 4G Coalition *700 MHz Further Notice* Comments at 12-20; 700 MHz Independents *700 MHz Further Notice* Comments at 8-10; Aloha *700 MHz Further Notice* Comments at 3-4; Dobson *700 MHz Further Notice* (continued....)

apply geographic benchmarks or a “keep-what-you-use” rule to rural areas, and that if a “keep-what-you-use” rule is adopted, licenses based on CMAs should be exempt.³⁷¹ Other commenters recommend that the Commission exempt RSA-based licenses from any interim build-out requirements.³⁷² In contrast, Dobson argues that strict geographic-based build-out requirements should apply only to licenses based on CMAs and EAs, not those based on REAGs.³⁷³ Other commenters opposed to a three-year interim benchmark note that such an approach does not account for high start-up costs or the time needed to develop new technologies, and that it hurts new entrants. For example, the 4G Coalition maintains that obligations and timelines such as those proposed by RCA “would dissuade, if not outright foreclose, a nationwide new entrant business plan.”³⁷⁴

152. Finally, some smaller service providers, as well as a regional service provider, support the Commission’s proposal to require REAG licensees to meet build-out requirements on an EA basis.³⁷⁵ Other commenters argue that build-out for REAG licenses should be evaluated under the existing substantial service standard or the existing substantial service standard should be applied on an EA basis.³⁷⁶

153. Discussion. In order to better promote access to spectrum and the provision of service, especially in rural areas, we replace the current “substantial service” requirements for the 700 MHz Band licenses that have not been auctioned with significantly more stringent performance requirements. These include the use of interim and end-of-term benchmarks, with geographic area benchmarks for licenses based on CMAs and EAs, and population benchmarks for licenses based on REAGs. Licensees must meet the interim requirement within four years of the end of the DTV transition (*i.e.*, February 17, 2013).³⁷⁷ Failure to meet the interim requirement will result in a two-year reduction in license term,³⁷⁸ as well as possible enforcement action, including forfeitures. We also reserve the right for those that fail to meet their interim benchmarks to impose a proportional reduction in the size of the licensed area. Licensees that fail to meet the end-of-term benchmarks will be subject to a “keep-what-you-use” rule, under which the licensee will lose its authorization for unserved portions of its license area, which will be returned to the Commission for reassignment. They may also be subject to potential enforcement action, including possible forfeitures or cancellation of license. We also impose certain reporting requirements intended to help the Commission monitor buildout progress during the license term. We expect that

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Comments at 3; Frontier 700 MHz Further Notice Comments at 10-12; RTG 700 MHz Further Notice Comments at 8-12; Union 700 MHz Further Notice Comments at 8; Verizon Wireless 700 MHz Further Notice Comments at 19-31; WISPA 700 MHz Further Notice Comments at 12-14.

³⁷¹ See Blooston 700 MHz Further Notice Comments at 7-8.

³⁷² See, *e.g.*, RTG 700 MHz Further Notice Comments at 9-10; NTCA 700 MHz Further Notice Comments at 5-7; Union 700 MHz Further Notice Reply Comments at 4-6.

³⁷³ See Dobson 700 MHz Further Notice Comments at 3-7.

³⁷⁴ See 4G Coalition 700 MHz Further Notice Comments at 15.

³⁷⁵ See, *e.g.*, 700 MHz Independents 700 MHz Further Notice Comments at 8-10; Cellular South 700 MHz Further Notice Comments at 6; Union 700 MHz Further Notice Comments at 8.

³⁷⁶ See, *e.g.*, 4G Coalition 700 MHz Further Notice Comments at 17; Dobson 700 MHz Further Notice Comments at 3; Verizon Wireless 700 MHz Further Notice Comments at 19-31. According to SpectrumCo, “greenmail” is “a practice by which parties not interested in actually providing service utilize the regulatory process to extract concessions from licensees.” SpectrumCo 700 MHz Further Notice Comments at 29.

³⁷⁷ The interim benchmark for initial licenses in a market granted after February 17, 2009 shall be four years from the date of license issuance.

³⁷⁸ As adopted herein, the length of original license term is ten years from the date of the DTV transition.

licensees will take these construction requirements seriously and proceed toward providing service with utmost diligence. As such, we do not envision granting waivers or extensions of construction periods except where unavoidable circumstances beyond the licensee's control delay construction.

154. In adopting these stringent performance requirements for the 700 MHz Commercial Services licenses that have not yet been auctioned, we accomplish several important policy objectives. We ensure that these 700 MHz Commercial Services licensees put this spectrum to use throughout the course of their license terms and serve the majority of users in their license areas. With the inclusion of an interim benchmark and the potential for enforcement action for failure to meet the construction requirements, we require licensees to provide service to consumers in a timely manner. By taking advantage of the excellent propagation characteristics of the spectrum in the 700 MHz Band, which enables broader coverage at lower costs,³⁷⁹ we promote the provision of innovative services to consumers throughout the license areas, including in rural areas. The unique propagation characteristics of this spectrum means that fewer towers will be needed to serve a given license area, as compared to providing service at higher frequencies, and thus large license areas may be served at lower infrastructure costs. Moreover, by establishing clear benchmarks, we provide licensees with regulatory certainty regarding the requirements that they must meet or, if they do not, permit other providers to gain access to the spectrum to provide services to consumers.

155. Overall, we conclude that these set of stringent benchmarks applied across smaller service areas with effective consequences for noncompliance, when combined with appropriately sized geographic licensing areas, are the most effective way to promote rapid service to the public, especially in rural areas. As noted above, the most common recommendation for promoting rural service made by small and rural providers was that additional licenses be made available based on smaller geographic service areas, which would be more readily available to providers that tend to serve rural consumers.³⁸⁰ Because, as described below, all licensees (including REAG licensees) must satisfy these new benchmarks on either a CMA or EA basis, these performance requirements will provide all licensees with incentives to serve more rural communities.

156. In addition, our "keep-what-you-use" rules provide additional methods for making smaller license areas available, thus promoting access to spectrum and the provision of service, especially in rural areas. This rule ensures that others are given an opportunity to acquire spectrum that is not adequately built out and provide services to those who reside in those areas.³⁸¹ In this way, our rules are pro-competitive and help ensure service to communities that might otherwise not receive service. In sum,

³⁷⁹ See Aloha 700 MHz Commercial Services Notice Comments at 2; Blooston 700 MHz Commercial Services Notice Comments at 3; Dobson 700 MHz Commercial Services Notice Comments at 3; Frontier 700 MHz Commercial Services Notice Comments at 4; NTCA 700 MHz Commercial Services Notice Comments 3-5; RCA 700 MHz Commercial Services Notice Comments at 3-4; RTG 700 MHz Commercial Services Notice Comments at 4-5.

³⁸⁰ See Aloha 700 MHz Commercial Services Notice Comments at 3-6; Balanced Consensus Plan 700 MHz Commercial Services Notice Comment at Attach.; Blooston 700 MHz Commercial Services Notice Comments at 2; C&W 700 MHz Commercial Services Notice Reply Comments at 2-3; Corr 700 MHz Commercial Services Notice Comments at 2-4; Dobson 700 MHz Commercial Services Notice Comments at 2-4; Howard/Javed 700 MHz Commercial Services Notice Comments at 9; Leap 700 MHz Commercial Services Notice Comments at 4-6; MilkyWay 700 MHz Commercial Services Notice Comments at 1-6; NextWave 700 MHz Commercial Services Notice Comments at 2-6; NTCA 700 MHz Commercial Services Notice Comments at 6; OPASTCO 700 MHz Commercial Services Notice Comments at 2-3; RCA 700 MHz Commercial Services Notice Comments at 4-8; RTG 700 MHz Commercial Services Notice Comments at 2; U.S. Cellular 700 MHz Commercial Services Notice Comments at 4.

³⁸¹ See RCA 700 MHz Further Notice Reply Comments at 10.

we conclude that our approach should effectively promote service, including in rural areas, while establishing a clear regulatory framework for licensees as they develop their business plans.

157. *Specific Performance Requirements for CMA and EA Licenses.* We conclude that, for licenses based on CMAs and EAs, licensees must provide signal coverage and offer service to: (1) at least 35 percent of the geographic area of their license within four years of the end of the DTV transition, and (2) at least 70 percent of the geographic area of their license at the end of the license term. In determining the relevant geographic area, we conclude that, in applying geographic benchmarks, we should not generally consider the relevant area of service to include government lands. CMA or EA licensees that fail to meet the interim requirement within their license areas will have their license terms reduced by two years, from ten to eight years, thus requiring these licensees to meet the end-of-term benchmark at an accelerated schedule. For those CMAs or EAs in which the end-of-term performance requirements have not been met, the unused portion of the license will terminate automatically without Commission action and will become available for reassignment by the Commission subject to the "keep-what-you-use" rules described below.

158. With regard to the use of geographic-based benchmarks for licenses based on CMAs and EAs, we seek to promote service across as much of the geographic area of the country as is practicable. We note that, while parties that seek to acquire licenses based on CMAs and EAs may be small and rural providers that are less likely to provide regional or nationwide service, they nonetheless play an important role in bringing new services to consumers in many of these more rural areas. For example, RTG argues that the use of small license areas such as CMAs "will create opportunities for small and rural businesses and will foster the deployment of competitive wireless broadband services in rural areas."³⁸² Because we adopt smaller geographic license areas such as CMAs to facilitate the provision of service, including broadband, in rural areas, we also adopt performance requirements that are designed to ensure that such service is offered to consumers in these areas. We agree with Cellular South's argument that the uniqueness of the 700 MHz spectrum justifies the use of geographic benchmarks and that the band's excellent propagation characteristics make it ideal for delivering advanced wireless services to rural areas.³⁸³ Accordingly, for licenses based on these CMAs and EAs that are well-suited for providing service in rural markets, we establish benchmarks that require build-out to a significant portion of the geographic area.

159. We note that these benchmarks for CMAs and EAs are similar to the benchmarks that we sought comment on in the *700 MHz Further Notice*, which proposed that licensees provide coverage to 25 percent of their geographic license area within three years of the end of the DTV transition, 50 percent of their geographic license area within five years, and 75 percent of their geographic license area within eight years. Although numerous parties supported the specific benchmarks proposed in the *700 MHz Further Notice*,³⁸⁴ the benchmarks we adopt in this Second Report and Order differ in certain respects from the proposal in the *700 MHz Further Notice*. In recognition of the comments we have received on our build-out proposal, we have adopted a four-year initial benchmark, not a three-year benchmark as was proposed in the *700 MHz Further Notice*. We are persuaded that a three-year build-out requirement would have a disproportionate impact on new entrants who have no existing networks or customers, as well as small or regional carriers who are looking to enlarge their operating footprint, but who do not

³⁸² RTG *700 MHz Commercial Services Notice* Comments at 4.

³⁸³ Cellular South *700 MHz Further Notice* Comments at 3.

³⁸⁴ See, e.g., Aloha *700 MHz Further Notice* Comments at 4; CCIA *700 MHz Further Notice* Comments at 4; Cellular South *700 MHz Further Notice* Comments at 4; RCA *700 MHz Further Notice* Comments at 5; Vermont Department of Public Service *700 MHz Further Notice* Reply Comments at 1-2; WISPA *700 MHz Further Notice* Comments at 12.

already have extensive pre-existing infrastructure in place. In addition, we are allowing additional time for the development of new technologies that might be employed in this spectrum and giving licensees sufficient time to develop new services.³⁸⁵ Because we move the proposed initial three-year coverage requirement to four years, we increase the initial geographic coverage requirement from the proposed 25 percent to 35 percent. Accordingly, we are not adopting a five-year coverage requirement, but we will require 70 percent geographic coverage at the end of the license term.

160. Consistent with the arguments of many commenters, we do not require licensees to include government lands as a part of the relevant service area when applying geographic benchmarks for several reasons. In many locations, covering certain government land may be impractical, because these lands are subject to restrictions that prevent a licensee from providing service or make provision of service extremely difficult. We also note that government lands often include only very small portions of the population in a license area. Government lands include areas that are owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the U.S. Department of Agriculture's Forest Service, the Department of Defense, the U.S. Fish and Wildlife Service, the National Park Service, the Tennessee Valley Authority, and other agencies and governmental entities, as well as areas that are owned or managed by individual states.³⁸⁶ A CMA or EA licensee with a geographic service area that includes land owned or administered by government may meet the build-out benchmarks established herein by providing signal coverage and offering service to the relevant percentages of land in the service area that is not owned or administered by government.

161. To the extent the licensee employs a signal level and provides service to land that is owned or leased by government, the licensee may count this land area and coverage as part of its service area for purposes of measuring compliance with the build-out benchmark, but it also must add the covered government land to the total geographic area used for measurement purposes. This approach ensures that licensees receive credit for land that they cover and gives them flexibility to meet our benchmarks through a combination of covering government and non-government land, given that in certain cases government lands may be a high traffic area or include a significant portion of the population in a license area.

162. *Specific Performance Requirements for REAG Licenses.* We conclude that, for licenses based on REAGs, licensees must provide signal coverage and offer service to: (1) at least 40 percent of the population of the license area within four years, and (2) at least 75 percent of the population of the license area by the end of the license term. Licensees must use the most recently available U.S. Census Data at the time of measurement to meet these population based build-out requirements.

163. In addition, for licenses based on REAGs, we will apply our performance requirements

³⁸⁵ We are concerned that the proposed three-year benchmark may not provide sufficient time for providers of advanced services to acquire and deploy 4G technologies. Such 4G network build-out will require the commercial availability of end-to-end integrated systems, including subscriber terminals, radio access network, core network, and transport network, in addition to flexible enhanced services and integrated back-office and customer support centers. To achieve a commercial availability benchmark, teams of service providers, vendors and integrators must complete several parallel processes, including completion of the standards, product development, field trials, interoperability testing and larger scale trials, followed by deployment. Such an implementation is challenging and it may not be possible for carriers to complete these tasks prior to the end of the three-year benchmark that was proposed in the 700 MHz *Further Notice*.

³⁸⁶ More information on lands owned or administered by the Federal Government is available from the Department of the Interior at <http://www.doi.gov>. In excluding these areas for purposes of calculating whether a licensee has met the relevant build-out requirements, however, we do not intend to discourage deployment to populated tribal areas. Accordingly, excluded areas do not include those populated lands held by tribal governments or those held by the Federal Government in trust or for the benefit of a recognized tribe.

on an EA basis.³⁸⁷ Accordingly, to meet their benchmarks, REAG licensees must provide signal coverage and offer service to at least 40 percent of the population in each EA in its license area within four years and 75 percent of the population of each of these EAs at the end of the license term. REAG licensees that fail to meet the interim requirement in any EA within their license areas will have their license term for the entire REAG reduced by two years, from ten to eight years, thus requiring these licensees to meet the *end-of-term benchmark at an accelerated schedule*. In applying the end-of-term coverage requirement to REAG licensees, the Commission will evaluate the licensee's coverage on an EA-by-EA basis. For those EAs in which the end-of-term performance requirements have not been met, the unused portion of the license will terminate automatically without Commission action and will become available for reassignment by the Commission subject to the "keep-what-you-use" regime described below.

164. With regard to the use of population-based benchmarks for REAG licensees, we agree with Dobson that this type of build-out requirement is appropriate for licensees with large geographic areas to allow for roll out of advanced services on a nationwide or regional basis.³⁸⁸ In particular, we are mindful of the significant capital investment and logistical challenges associated with building a regional or nationwide system without an existing infrastructure. The use of benchmarks based on population, rather than geographic area, may best allow a potential new entrant to achieve the economies of scale needed for a viable business model, while also ensuring that a majority of the population in a given region may have access to these services. Similarly, as compared to geographic benchmarks, the use of population benchmarks is more consistent with the recommendations and likely business plans of existing nationwide service providers such as AT&T and Verizon Wireless.³⁸⁹ As these large providers expand into more advanced services such as broadband, they, like new entrants, will need to spread the costs of developing such operations over as many customers as possible. The use of population-based benchmarks, rather than geographic benchmarks, allows these new and existing providers to promptly and efficiently develop these new services, thus reaching more consumers more quickly. Accordingly, to facilitate new entry as well as the expansion of service to as many people as practicable, we combine the use of REAGs with population-based performance requirements. These population-based benchmarks are similar to those proposed by Verizon Wireless in its comments.³⁹⁰ Verizon Wireless proposes covering 50 percent of the population of a license area within five years and 75 percent of the population of a license area by the end of the license term. We have adjusted the interim population percentage figure to 40 percent because we are making the first benchmark applicable at four years rather than five years. Further, we are applying these requirements on an EA basis for REAG licenses in order to help ensure that REAG licensees serve more rural consumers. If we were to apply these requirements on a REAG basis, rather than an EA basis, REAG licensees would be able to meet their performance requirements largely by serving urban areas only. Our use of EAs to measure build-out for REAG licenses will avoid this result and best promote the development and deployment of broadband services over such large license areas.

165. *Reporting Requirements.* In connection with the performance requirements adopted in this Second Report and Order, we adopt an interim reporting requirement that will obligate licensees to provide the Commission with information concerning the status of their efforts to meet the performance requirements and the manner in which their spectrum is being utilized. In addition, this information will be useful to monitor whether further assessment of the rules or other actions are necessary in the event

³⁸⁷ See, e.g., Cellular South 700 MHz Further Notice Comments at 6.

³⁸⁸ See Dobson 700 MHz Further Notice Comments at 3-7.

³⁸⁹ See AT&T 700 MHz Further Notice Comments at 19-20; Verizon Wireless 700 MHz Further Notice Comments at 28-29.

³⁹⁰ See Verizon Wireless 700 MHz Further Notice Comments at 28-29.

spectrum is being stockpiled or warehoused, or if it is otherwise not being made available despite existing demand. For licensees that meet their interim benchmarks, these reports will be filed at the end of the second and seventh years following the end of the DTV Transition, *i.e.*, February 17, 2011 and February 17, 2016. For licensees that do not meet their interim benchmarks and have their license terms reduced, the second report will be filed at the end of the sixth year following the end of the DTV Transition, *i.e.*, February 17, 2015. The information to be reported will include a description of the steps the licensee has taken toward meeting its construction obligations in a timely manner, including the technology or technologies and service(s) being provided and the areas in which those services are available.

166. *Procedures for Implementation.* Licensees must demonstrate compliance with our interim and end-of-term construction benchmarks by filing a construction notification with the Commission within 15 days of the relevant benchmark certifying that they have met our performance requirements or, if they have not met our performance requirements, they must file a description and certification of the areas for which they are providing service.³⁹¹ The information contained in the licensee's construction notification must include electronic coverage maps and other supporting documentation.³⁹² The construction notification, including the coverage maps and supporting documents, must be truthful and accurate and must not omit material information that is necessary for the Commission to make a determination of compliance with its performance requirements.³⁹³ In addition, we recognize that demonstrations of coverage may vary across licensees. For example, unlike with cellular service, which was implemented pursuant to a uniform, Commission-mandated technical standard, licensees in the 700 MHz Band likely will use a variety of technologies to provide a range of services with this spectrum. Accordingly, we delegate to the Wireless Bureau the responsibility for establishing the specifications for filing maps and other documents (*e.g.*, file format and appropriate data) needed to determine a licensee's geographic coverage area. We recognize that coverage determinations may need to be made on a case-by-case basis so as to account for the potentially wide variety of services and technologies that may be offered in the band.

167. As explained above, licensees with REAG-based licenses are required to meet their applicable performance requirements on an EA basis and licensees with EA- or CMA-based licenses must demonstrate coverage for their respective geographic license areas. The electronic coverage maps must clearly and accurately depict the boundaries of each EA or CMA in the licensee's service territory, and the areas where the licensee is providing signal coverage and offering service. If the licensee's signal does not provide service to the entire EA or CMA, the map must clearly and accurately display the boundaries of the area or areas within each EA or CMA not being served.³⁹⁴

168. In addition to filing electronic coverage maps, each licensee must file supporting documentation certifying the type of service it is providing for each EA or CMA within its license service

³⁹¹ See 47 C.F.R. § 1.946(d) ("The notification must be filed with Commission within 15 days of the expiration of the applicable construction or coverage period.").

³⁹² When the Commission adopted a benchmark approach for Personal Communications Service (PCS), it stated: "Licensees must file maps and other supporting documents showing compliance with the respective construction requirements within the appropriate five- and ten-year benchmarks of the date of their initial licenses." 47 C.F.R. § 24.203(c). See, *e.g.*, Cellular South 700 MHz Further Notice Comments at 5.

³⁹³ See, *e.g.*, 47 C.F.R. § 1.17 (Truthful and accurate statements to the Commission); 47 C.F.R. § 1.917 ("Willful false statements made therein, however, are punishable by fine and imprisonment, 18 U.S.C. 1001, and by appropriate administrative sanctions, including revocation of station license pursuant to 312(a)(1) of the Communications Act of 1934, as amended.").

³⁹⁴ We decline to adopt the suggestion from RTG that we define a bright line test for what constitutes sufficient signal strength, because we will be able to determine compliance with our build-out requirements on the basis of these detailed filing requirements. See RTG 700 MHz Further Notice Comments at 8-12.

territory and the type of technology it is utilizing to provide this service for each EA or CMA in its service territory. The supporting documentation also must provide the assumptions used by the licensee to create the coverage maps, including the propagation model and the signal strength necessary to provide service with the licensee's technology.³⁹⁵

169. When the licensee files its construction notification, including its coverage maps and supporting documentation, the public will be given an opportunity to review and comment on the construction notification, including the maps provided by the licensee and the technical assumptions used to create the maps. After examining the notification and public comments, Commission staff will make a final determination as to what areas within EAs and CMAs are, and are not, deemed "served." If the Commission determines that a licensee meets the applicable interim benchmark, it will not have its license term reduced by two years. Likewise, if the Commission determines that a licensee meets its applicable end of term benchmark requirement, it will be deemed to have met our construction build-out requirement.

170. Under our "keep-what-you-use" rule, if a licensee fails to meet its end of term benchmark, its authorization to operate will terminate automatically without Commission action for those geographic areas of its license authorization in which the licensee is not providing service, and those unserved areas will become available for reassignment by the Commission. We will update our Universal Licensing System records to reflect those geographic areas for which the licensee retains authority to operate, as well as those geographic areas that will be made available for reassignment.

171. For purposes of reassigning these licenses, the Wireless Bureau is delegated authority to announce by public notice that these licenses will be made available and establish a 30-day window during which third parties may file license applications to serve these areas. During this 30-day period, licensees that lost their license authorizations for the areas that they did not serve may not file applications to provide service to these areas. Applications filed by third parties that propose areas overlapping with other applications will be deemed mutually exclusive, and will be resolved through an auction. The Wireless Bureau, by public notice, may specify a limited period before the filing of short-form applications (FCC Form 175) during which applicants may enter into a settlement to resolve their mutual exclusivity.

172. Following this 30-day period, the original licensee and third parties can file license applications for remaining unserved areas where licenses have not been issued or there are no pending applications. If the original licensee or a third party files an application, that application will be placed on public notice for 30 days. If no mutually exclusive application is filed, the application will be granted, provided that a grant is found to be in the public interest. If a mutually exclusive application is filed, it will be resolved through an auction. The Wireless Bureau, by public notice, may specify a limited period before the filing of short-form applications (FCC Form 175) during which applicants may enter into a settlement to resolve their mutual exclusivity. We stress that any applications that are mutually exclusive under the performance requirements we adopt in this Second Report and Order, as well as certain other pleadings, will be subject to Section 1.935 of the rules.³⁹⁶ Under that rule, parties that have filed applications that are mutually exclusive with one or more other applications must request Commission approval to dismiss or withdraw the applications. Parties are required to submit any written agreement related to the dismissal or withdrawal as well as affidavits certifying that no money or other consideration

³⁹⁵ For EA and CMA licenses, if any part of the license area includes government lands, the licensee must certify in the supporting documentation what percentage of the EA or CMA contains government lands exempted from coverage.

³⁹⁶ 47 C.F.R. § 1.935. In addition to applications, Section 1.935 also addresses petitions to deny, informal objections, or other pleadings.

in excess of certain "legitimate and prudent expenses" has or will be exchanged in return for withdrawing or dismissing the applications.³⁹⁷

173. A licensee obtaining spectrum that was lost through our "keep-what-you-use" rule will have one year from the date it is issued a license to complete its construction and provide signal coverage and offer service to the entire new license area. If the licensee fails to meet this construction requirement, its license will automatically cancel without Commission action and it will not be eligible to apply to provide service to this area on the same frequencies at any future date. We find that a one-year deadline is consistent with the period we provided to entrants building out in unserved cellular areas,³⁹⁸ and will promote expedited provision of service to remote and rural areas.

174. Under our "keep-what-you-use" rules, the Commission will determine whether an area is unserved by applying a *de minimis* standard similar to that applied to cellular service, which provides that the geographic service area to be made available to new entrants must include a contiguous area of at least 130 square kilometers (50 square miles).³⁹⁹ Areas smaller than this will not be deemed unserved by the Commission, because auctioning and licensing smaller areas to new licensees could result in harmful interference to incumbent licensees. Accordingly, unserved areas that are smaller than 130 kilometers will continue to be a part of the licensee's license area. In those geographic areas that the Commission deems as served, the licensee will retain its exclusive spectrum rights, including the ability to transfer and lease these areas. As explained below, the licensee also will have the opportunity to expand its service into the unused parts of its original license area.

175. While we will enforce our performance requirements to make unserved areas available to new entrants, we also will enforce all other Commission rules, including those related to protecting licensees against interference and limiting strategic behavior. Our rule governing field strength limits for licensees in this band, for example, serves the dual purposes of permitting actual service to occur even at the edge of geographic market boundaries, and establishing a baseline for licensees to negotiate technical parameters (*e.g.*, higher or lower field strengths, coordinated site placement) that will maximize coverage. This approach can be successful so long as neighboring licensees not only have the flexibility to place facilities near license boundaries, but also face the potential of harmful interference from neighboring licensees facilities. A licensee, however, could decide to place transmitters along a market boundary, not provide service to any system users, and cause interference to a neighboring licensee. Without system users, such a licensee would not fear interference in return, and could use such operations to gain an advantage in negotiations with the neighboring licensee. Examples of this type of operation could include the placement of mobile system base station transmitters, or fixed transmitters, near a market boundary, oriented in such a way as to meet the field strength limits in the rules, but cause interference to a neighboring licensee's system users near the boundary. Because of the potential for this scenario, we remind licensees that Section 333 of the Communications Act, as amended,⁴⁰⁰ prohibits willful and malicious interference with or causing interference to a licensed or authorized station, and we note that we will vigorously investigate complaints of this nature and enforce this provision.

176. *Other Issues.* In rejecting the arguments of parties advocating continuation of the current substantial service standard,⁴⁰¹ we note that there is no requirement that construction build-out provisions

³⁹⁷ *Id.*

³⁹⁸ 47 C.F.R. §§ 22.946(c), 22.949.

³⁹⁹ See 47 C.F.R. § 22.951.

⁴⁰⁰ 47 U.S.C. § 333.

⁴⁰¹ Some commenters argue that the details of implementation of "keep-what-you-use" will be overly burdensome and contentious. See, *e.g.*, Leap 700 MHz Further Notice Comments at 5-7; Verizon Wireless 700 MHz Further Notice Comments at 19-31.

be the same for all commercial wireless services, nor even for those of a certain type.⁴⁰² We determine that given the excellent propagation characteristics of this spectrum,⁴⁰³ the benefits of service being offered before the end of the license term, and the public interest that would be served by ensuring additional service in the more rural and remote areas of this country, more rigorous performance requirements are appropriate for these 700 MHz commercial licenses.

177. Given these stringent performance requirements, we decline to adopt the proposal that would allow third parties to access the unused portions of a licensee's spectrum on a non-interfering basis. While several commenters raise this issue,⁴⁰⁴ we note that, in the *TV White Spaces Report and Order*, the Commission specifically declined to apply to the 700 MHz Band the unlicensed use rules that it adopted for the core TV spectrum. The Commission observed that, as compared to the core TV bands, the 700 MHz Band will have different services, with different interference considerations.⁴⁰⁵ The Commission also noted the difficulty of allowing unlicensed use of white spaces in spectrum used by mobile devices.⁴⁰⁶ Moreover, we have taken other steps in this Report and Order to promote access to the 700 MHz Band, especially in rural areas, through the use of smaller geographic license areas and stringent build-out requirements.

(ii) Partitioning and Disaggregation

178. Background. The Commission's Part 27 rules permit geographic partitioning and spectrum disaggregation by 700 MHz Commercial Services licensees.⁴⁰⁷ As the Commission stated when first establishing partitioning and disaggregation rules: "We believe that such flexibility will (1) facilitate the efficient use of spectrum by providing licensees with the flexibility to make offerings directly responsive to market demands for particular types of service; (2) increase competition by allowing market entry by new entrants; and (3) expedite the provision of service to areas that otherwise may not receive ... service in the near term."⁴⁰⁸ Licensees seeking to partition or disaggregate ("partitioners" or "disaggregators") and parties seeking to gain access to spectrum through partitioning or disaggregation ("partitionees" or "disagregatees") may seek Commission authorization at any time following the grant

⁴⁰² See, e.g., 47 C.F.R. § 24.203(b) (sets out different construction obligations for certain 15 MHz C Block PCS licenses that result from disaggregation as compared to other 15 MHz C Block licenses that result from disaggregation).

⁴⁰³ See, e.g., Aloha 700 MHz Commercial Services Notice Comments at 2; Blooston 700 MHz Commercial Services Notice Comments at 3; Dobson 700 MHz Commercial Services Notice Comments at 3; Frontier 700 MHz Commercial Services Notice Comments at 4; NTCA 700 MHz Commercial Services Notice Comments at 3-5; RCA 700 MHz Commercial Services Notice Comments at 3-4; RTG 700 MHz Commercial Services Notice Comments at 4-5.

⁴⁰⁴ See, e.g., Howard/Javed 700 MHz Commercial Services Notice Comments at 31-37; NextWave 700 MHz Commercial Services Notice Reply Comments at 9-12; PISC 700 MHz Further Notice Comments at 37; see also Google 700 MHz Further Notice Comments at 9.

⁴⁰⁵ *TV White Spaces Report and Order*, 21 FCC Rcd at 12275 ¶ 21.

⁴⁰⁶ For example, in addressing the issue of unlicensed use in the TV white spaces, the Commission noted that in 13 markets across the country Private Land Mobile Radio Service (PLMRS) licensees use some channels in the range of channels 14-20, and it observed that personal/portable mobile devices could be easily transported into these areas. Accordingly, the Commission prohibited such devices from operating on these channels in any part of the country. See *TV White Spaces Report and Order*, FCC Rcd at 12275 ¶ 21.

⁴⁰⁷ 47 C.F.R. § 27.15.

⁴⁰⁸ Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Service Licensees, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 21831 ¶ 1 (1996) (*CMRS Partitioning and Disaggregation Order*).

of the initial licenses.⁴⁰⁹ At the time of their applications, the original licensees and the parties seeking to obtain new licenses of partitioned or disaggregated spectrum must establish how the applicable performance requirements associated with the various license authorizations will be met.⁴¹⁰ The goal of these construction requirements in both the partitioning and disaggregation context is “to ensure that the spectrum is used to the same degree that would have been required had the partitioning or disaggregation transaction not taken place.”⁴¹¹

179. Section 27.15(d) implements the Commission’s existing rules pertaining to construction obligations in the context of partitioning and disaggregation. Consistent with the substantial service requirements that had previously been adopted for these licenses, the existing rules address how the substantial service policies apply in this context. The partitioning rules, set forth in Section 27.15(d)(1), provide parties with two different options for satisfying these requirements. Under the first option, the partitioner and partitionee each must certify that it will independently satisfy the substantial service requirement for its respective partitioned area. If a licensee, either the partitioner or the partitionee, subsequently fails to meet the performance requirements associated with the license authorization for its partitioned area, its license is subject to automatic cancellation without further Commission action. Under the second option, the partitioner must certify that it has met or will be responsible for meeting the performance requirements for the entire, pre-partitioned geographic service area.⁴¹² We note that another Part 27 provision requires that the partitionee make a showing of substantial service at the end of the license term.⁴¹³

180. The disaggregation rules, set forth in Section 27.15(d)(2), also provide parties two options for satisfying the substantial service requirements. Under the first option, the disaggregator and disaggregatee each must certify that it will share responsibility for meeting the substantial service requirement for the geographic service area. If the parties choose this option and either party subsequently fails to meet this requirement, both parties’ licenses are subject to forfeiture without further Commission action. Under the second option, both parties must certify either that the disaggregator or the disaggregatee will meet the substantial service requirement for the geographic service area.⁴¹⁴ As provided by another provision of our Part 27 rules, the other licensee must also make a showing of substantial service at the end of the license term.⁴¹⁵

181. In the *700 MHz Commercial Services Notice*, we sought comment on whether to change any aspect of Section 27.15 on partitioning and disaggregation in order to help ensure the provision of service to consumers, including any rural areas that are part of a partitioned or disaggregated license.⁴¹⁶ We received no comments regarding how the Commission should or might revise these rules.

182. Discussion. Upon examination of the existing partitioning and disaggregation rules set forth in Section 27.15(d), and in consideration of stricter performance obligations we are establishing (as discussed above), we amend our rules to clarify how those obligations will apply to the partitioning and disaggregation of 700 MHz Commercial Services licenses that remain to be auctioned. In particular,

⁴⁰⁹ See, e.g., 47 C.F.R. § 27.15 (partitioning and disaggregation rules for Part 27 licenses).

⁴¹⁰ See *id.*

⁴¹¹ *CMRS Partitioning and Disaggregation Order*, 11 FCC Rcd at 21864 ¶ 61.

⁴¹² 47 C.F.R. § 27.15(d)(1).

⁴¹³ 47 C.F.R. § 27.14(a) (every Part 27 licensee must establish substantial service at the end of the license term).

⁴¹⁴ 47 C.F.R. § 27.15(d)(2).

⁴¹⁵ 47 C.F.R. § 27.14(a) (every Part 27 licensee must establish substantial service at the end of the license term).

⁴¹⁶ *Id.*

having adopted stricter performance requirements for these licensees, we establish how these rules will work with regard to the four-year and the end-of-term benchmarks and the “keep-what-you-use” policies discussed above. These amendments concern only the specific rules in Section 27.15(d) as they apply to the new 700 MHz Commercial Services licenses, and only those Section 27.15 rules that specifically concern construction requirements in the context of partitioning and disaggregation.⁴¹⁷

183. These modifications seek to continue to provide flexibility to licensees and third parties to enter into partitioning and disaggregation arrangements that will, *inter alia*, facilitate the provision of new services to consumers, including consumers in unserved and underserved areas. They also are consistent with our goal of ensuring that this 700 MHz spectrum is used at least to the same extent as it would have been had partitioning or disaggregation not occurred.

184. *Partitioning.* Under our modifications of the Section 27.15(d) rules relating to geographic partitioning of new 700 MHz Commercial Services licenses, we establish two options for partitioners and partitionees with regard to the newly adopted performance requirements discussed above.

185. Under the first option, the partitioner and partitionee must each certify to the Commission that they will share responsibility for meeting the performance requirements for the entire original geographic license area. Under this option, the partitioner, partitionee, or both the partitioner and partitionee working together, can meet the four-year and end-of-term construction benchmarks for the entire geographic license area.⁴¹⁸ If the parties meet the end-of-term construction benchmarks, they will retain the ability to continue to build out the unserved portion of their license areas. Parties that fail to meet the end-of-term benchmarks will be subject to a “keep-what-you-use” rule, under which they will lose their authorization for unserved portions of their license areas, which will automatically cancel and return to the Commission for reassignment. This option enables parties to share the cost of meeting the stricter buildout benchmarks as required by the Commission under its new performance requirements, while ensuring that buildout will occur over the original license area to the same extent as it would have occurred had the license never been partitioned.

186. Under the second option, the partitioner and partitionee must each certify that it will independently meet the applicable performance requirements for its respective partitioned service area.⁴¹⁹ If the partitioner or partitionee fails to meet the four-year build-out requirement for its respective partitioned service area, then its license term will be reduced by two years.⁴²⁰ If the parties meet the end-of-term construction benchmarks, they will retain the ability to continue to build out the unserved portion

⁴¹⁷ Specifically, we will keep in place for new 700 MHz Commercial Services licensees the other existing Section 27.15 rules pertaining to geographic partitioning and spectrum disaggregation – Sections 27.15(a), (b), and (c). These sections address eligibility, technical standards, and license term.

⁴¹⁸ For applications seeking Commission approval for license partitioning that would occur before the four-year performance requirements have become due, the partitioner and partitionee each must certify that they will share responsibility for meeting the four- and ten-year benchmarks for the original geographic license area. For applications seeking Commission approval for license partitioning after the four-year benchmark has been met, both parties must certify that they will share responsibility for meeting the ten-year build-out requirement.

⁴¹⁹ If the parties choose this option and enter into a partitioning agreement before the four-year build-out requirements have become due, then each party must certify that it will meet both the four- and ten-year build-out requirements for its respective partitioned geographic license area. If the parties enter into a partitioning agreement after the four-year construction benchmark has been met, then each party must certify that it will meet the ten-year build-out requirement for its respective partitioned license area.

⁴²⁰ To the extent that a REAG licensee partitions a license, and the four-year construction benchmark is not met with regard to any EA area, the REAG licensee’s license term would be reduced to eight years, thus requiring that the licensee meet the end-of-term benchmark at an accelerated schedule.

of their license areas. Parties that fail to meet the end-of-term benchmarks will be subject to a “keep-what-you-use” rule, under which they will lose their authorization for unserved portions of their license areas, which will automatically cancel and return to the Commission for reassignment. This option provides a way for partitioners and partitionees to ensure that their licenses will not be affected by the other party’s conduct with regard to meeting the applicable performance requirements.

187. *Disaggregation.* With regard to the rules relating to disaggregation of new 700 MHz Commercial Services Band licenses, we modify Section 27.15(d) to provide that the disaggregator, disaggregatee, or both the disaggregator and disaggregatee working together, can meet the four-year and end-of-term construction benchmarks for the entire geographic license area.⁴²¹ If either of the parties meets the four-year build-out requirement, then this requirement is considered to be satisfied for both parties. If neither of the parties meets the four-year build-out requirement, then each of their license terms will be reduced by two years.⁴²² Similarly, if either of the parties meets the end-of-term build-out requirement, then this requirement is considered to be satisfied for both parties, and they will retain the ability to continue to build out the unserved portion of their license areas. However, parties that fail to meet the end-of-term benchmarks will be subject to an automatic “keep-what-you-use” rule, under which they will lose their authorization for unserved portions of their license areas, which will automatically cancel and return to the Commission for reassignment..

188. This approach to our build-out requirements in the disaggregation context will not create additional burdens for these arrangements because the parties need build out only to the same extent as would have occurred if the spectrum for this area had not been disaggregated. This approach also provides the opportunity for parties to enter into disaggregation agreements where they would share the cost of meeting the construction requirement. By ensuring that the performance obligation remains on both parties, we provide greater assurance that the disaggregation agreement will result in compliance with these requirements. In addition, we note that either party is able to satisfy our build-out requirements independently in the disaggregation context because each will hold spectrum over the entire geographic area.

(iii) Open Platforms for Devices and Applications

189. *Background.* In the *700 MHz Further Notice*, we sought comment on a proposal filed by PISC that licenses for at least 30 megahertz of the unauctioned commercial 700 MHz Band spectrum bear a condition requiring a licensee to provide open platforms for devices and applications.⁴²³ PISC described its proposal as including the right of a consumer to use any equipment, content, application, or service on a non-discriminatory basis.⁴²⁴ PISC subsequently expanded its proposal to recommend that

⁴²¹ For a disaggregation that would occur before the four-year build-out requirement is due, the disaggregator, disaggregatee, or both the disaggregator and disaggregatee working together must meet the four- and ten-year benchmarks for the geographic license area. For disaggregation that would occur after the interim four-year benchmark has been met, the disaggregator, disaggregatee, or both the disaggregator and disaggregatee working together must meet the ten-year build-out requirement.

⁴²² Similar to the rules applicable to partitioning discussed above, to the extent that a REAG licensee disaggregates a license and the four-year construction benchmark is not met with regard to any EA area, the REAG licensee’s license term would be reduced to eight years, thus requiring that the licensee meet the end-of-term benchmark at an accelerated schedule.

⁴²³ The *Ad Hoc* Public Interest Spectrum Coalition consists of the Consumer Federation of America, Consumers Union, Free Press, Media Access Project, New America Foundation, and Public Knowledge.

⁴²⁴ PISC’s proposal for the 700 MHz Band generally is more extensive than a similar proposal by Frontline for open access in a portion of the Upper 700 MHz spectrum Frontline proposes to be used for a public/private partnership license. See *700 MHz Further Notice*, 22 FCC Rcd at 8167-68 ¶ 290.

these requirements should apply to all 60 megahertz of the unauctioned spectrum.⁴²⁵

190. PISC argues that “incumbent wireless carriers . . . routinely choke bandwidth to users, cripple features, and control the user experience” in order to protect their wireline broadband offerings (e.g., DSL and cable modem).⁴²⁶ Supporters offer many examples of such restrictions, including restrictions on the use of Voice Over Internet Protocol (VoIP), webcams, and other media devices.⁴²⁷ *Frontline* cites the Apple iPhone device, which is designed to work exclusively on one provider’s network.⁴²⁸ Other commenters refer to the record in a rule making proceeding requested by Skype Communications S.A.R.L (Skype), where, as here, commenters complain that incumbent wireless service providers impose restrictions on a range of devices and features, such as VoIP,⁴²⁹ and “routinely choke bandwidth to users, cripple features, and control the user experience.”⁴³⁰ In addition, Wireless Founders Coalition for Innovation (WFCI) also complains that wireless providers impose an “arduous,” “difficult and time-consuming” set of qualification and approval processes before applications can be run or devices attached to a network.⁴³¹

191. Proponents argue that without mandated open access, wireless broadband service is unlikely to develop into a vigorous competitor for existing wireline broadband services, because incumbent wireless service providers owned by wireline companies will instead limit the quality of their wireless broadband offerings to protect their wireline broadband offerings.⁴³² These commenters credit the open access model with creating a competitive environment in which independent service and equipment providers flourished in this country under the *Carterfone* decision,⁴³³ the *Computer Proceedings*, and the 1996 Telecommunications Act.⁴³⁴ They argue that the 700 MHz open access

⁴²⁵ PISC 700 MHz Further Notice Comments at 12.

⁴²⁶ PISC 700 MHz Further Notice Comments at 7.

⁴²⁷ WFCI June 7 Ex Parte at 4.

⁴²⁸ *Frontline 700 MHz Further Notice* Comments at 21-22.

⁴²⁹ MoveOn.org June 4, 2007 Reply Comments at 1; Skype July 10, 2007 Ex Parte at 3.

⁴³⁰ PISC 700 MHz Further Notice Comments at 7. Handset or phone “locking,” for example, is one practice that arguably prevents consumers from migrating otherwise technically compatible equipment from one wireless service provider to another. Providers claim that it is a practice designed to combat fraud. See Verizon Wireless July 25 Exempt Ex Parte, Attach. at 22-23, and Verizon Wireless July 27 Exempt Ex Parte at 2 (locking restrictions should be limited to locking or programming a device to prevent a user from activating device on another carrier’s network); see also, e.g., the following comments filed in the Skype proceeding, RM-11361: PISC Comments at ii, 8; API Comments at 2; Consumers Union at i, 2-5, 11; NASUCA Comments at 3; PPH Comments at 2-3; PISC Comments at 2-3, 8; Ram Fish Comments at 3, 9; BT Americas Reply Comments at 1, 8-10, 12; NASUCA Reply Comments at 5.

⁴³¹ WFCI July 3, 2007 Ex Parte, Attach. at 1-11.

⁴³² PISC 700 MHz Further Notice Comments at 15, 22-26; MoveOn.org 700 MHz Further Notice Reply Comments at 1; see also CCIA 700 MHz Further Notice Comments at 6; *Frontline 700 MHz Further Notice* Comments at 21-22; Google 700 MHz Further Notice Comments at 2; *Frontline 700 MHz Further Notice* Comments on Google’s Comments at 4; WFCI 700 MHz Further Notice Comments at 3.

⁴³³ *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC 2d 420 (1968).

⁴³⁴ See, e.g., PISC 700 MHz Further Notice Comments at 16-19; Vanu 700 MHz Further Notice Comments at 4; Google June 9, 2007 Ex Parte at 5-6; see also *Frontline 700 MHz Further Notice* Comments at 22. In addition, approximately 250,000 individual citizens filed brief comments both during and after the formal comment periods asking the Commission to ensure that large corporations will not stifle competition and innovation in Internet markets over U.S. airwaves, and to set aside at least 30 MHz of spectrum for open and non-discriminatory Internet access.

policies they advocate will facilitate competitive entry for both wireless service providers and Internet service providers, which will foster innovation, enhance services, and lower prices.⁴³⁵ For example, Google maintains that the only way to guarantee new broadband platforms is through open platform requirements: open applications, open devices, open services, and open networks.⁴³⁶

192. On the other hand, opponents dispute the need for open access requirements and argue that these requirements could have adverse consequences. They maintain that, unlike the monopoly wireline market in which the *Carterfone* decision was based, there is effective competition in the mobile wireless market and that auction of the remaining commercial 700 MHz Band spectrum will provide opportunities for additional competitors.⁴³⁷ Opponents assert that open access advocates exaggerate the restrictions wireless providers impose on consumers,⁴³⁸ and to the extent providers do engage in such practices, such practices are reasonable measures to protect the integrity and efficiency of wireless networks.⁴³⁹ In addition, some commenters argue that imposing open access requirements would directly contradict Commission findings that bundling mobile handsets with wireless service contracts increases wireless penetration, and that subjecting wireless broadband Internet access service providers to access, price, or unbundling mandates is a disservice to consumers.⁴⁴⁰ Verizon Wireless maintains that the “incumbent advantages” cited by Google are not anticompetitive, and result from high-risk capital investments in a competitive market.⁴⁴¹

193. Opponents also challenge open access requirements as a throwback to an obsolete “command-and-control” regulatory regime, which they see as unnecessarily restricting mobile wireless licensees’ flexibility to adapt to market conditions and effectively compete.⁴⁴² Verizon Wireless argues

⁴³⁵ See, e.g., PISC 700 MHz Further Notice Comments at 20-22; Vanu 700 MHz Further Notice Comments at 5; The Coalition for 4G in America July 20 Ex Parte at 1; Public Knowledge July 23 Ex Parte at 4-7; see also Frontline 700 MHz Further Notice Comments at 21; Frontline 700 MHz Further Notice Reply Comments at 32.

⁴³⁶ Google July 9 Ex Parte at 4-8.

⁴³⁷ CTIA 700 MHz Further Notice Comments at 24; Dobson 700 MHz Further Notice Comments at 9-10; MetroPCS 700 MHz Further Notice Comments at 39; Qualcomm 700 MHz Further Notice Comments at 11-12; CTIA 700 MHz Further Notice Reply Comments at 10, 13; MetroPCS 700 MHz Further Notice Reply Comments at 25-27; Qualcomm 700 MHz Further Notice Reply Comments at 5; T-Mobile 700 MHz Further Notice Reply Comments at 4-5, 7-9; TCA 700 MHz Further Notice Reply Comments at 4-5; Verizon Wireless 700 MHz Further Notice Reply Comments at 15; see also MetroPCS 700 MHz Further Notice Reply Comments at 35-36; Verizon Wireless 700 MHz Further Notice Comments at 46; U.S. Cellular July 24, 2007 Ex Parte at 2; Verizon July 25 Exempt ex parte, attaching Verizon’s Comments in RM-11361. Cf. AT&T 700 MHz Further Notice Comments at 22, 28-33; AT&T 700 MHz Further Notice Reply Comments at 3-6. We note that although AT&T’s comments and reply comments generally opposed “open access,” in recent filings AT&T states that it supports a limited access requirement so long as there are safeguards addressing its earlier concerns. AT&T July 20 Ex Parte, Attach. at 2.

⁴³⁸ See, e.g., CTIA July 19, 2007 Ex Parte at 1-2 (noting CTIA’s demonstration of handsets from four largest wireless carriers with integrated open Wi-Fi connectivity as well as ability to “easily run Skype application”).

⁴³⁹ CTIA 700 MHz Further Notice Comments at 23-24; Dobson 700 MHz Further Notice Comments at 10-11; Qualcomm 700 MHz Further Notice Comments at 12; MetroPCS 700 MHz Further Notice Reply Comments at 28-31; T-Mobile 700 MHz Further Notice Reply Comments at 10; see also Verizon Wireless 700 MHz Further Notice Comments at 46-48; Verizon Wireless 700 MHz Further Notice Reply Comments at 21-22.

⁴⁴⁰ See, e.g., Verizon Wireless July 24 Ex Parte at 4.

⁴⁴¹ Verizon Wireless July 24 Ex Parte at 3.

⁴⁴² CTIA 700 MHz Further Notice Comments at 24; Dobson 700 MHz Further Notice Comments at 10; MetroPCS 700 MHz Further Notice Comments at 39-40; Qualcomm 700 MHz Further Notice Comments at 12; AT&T 700 MHz Further Notice Reply Comments at 3, 13-17; MetroPCS 700 MHz Further Notice Reply Comments at 25, 27-28, 40; Qualcomm 700 MHz Further Notice Reply Comments at 6; T-Mobile 700 MHz Further Notice Reply (continued....)

that imposing an open access business model undermines the auction process and competitive bidding, which is designed to identify those bidders who place the highest value on the licenses to ensure that this scarce resource is not wasted or underexploited.⁴⁴³ Verizon Wireless asserts that imposing open access regulations runs contrary to the Commission's "light regulatory touch" for wireless services generally, and is inconsistent with the Commission's prior determinations regarding the regulation of broadband services.⁴⁴⁴ According to Verizon Wireless, requiring winners of licenses in the 22 MHz block to provide open access would impose an asymmetrical regulatory regime on only one segment of the industry, thus drawing arbitrary distinctions by treating those licensees differently than other 700 MHz licensees, other wireless providers and/or broadband Internet access providers.⁴⁴⁵ Also, according to Verizon Wireless, the Commission cannot impose access requirements without violating various sections of the Communications Act and affecting the First Amendment rights of existing providers. AT&T, on the other hand, maintains that open access requirements for the 700 MHz C Block would enable the introduction of an alternative wireless business model without requiring changes in the business models of AT&T (and others) in the highly competitive wireless industry.⁴⁴⁶ According to AT&T, the proposal provides an opportunity for new entrants to bid and test their business models in the marketplace.⁴⁴⁷

194. Several commenters also note that PISC's proposal involves issues also raised in the *Broadband Practices* proceeding⁴⁴⁸ and in the Skype Petition.⁴⁴⁹ Opponents of open access argue that such proposals affect the wireless industry at large, not just parties interested in the 700 MHz Band spectrum, and are more appropriately considered in a forum with a broad perspective.⁴⁵⁰ In the *Broadband Practices* proceeding, we are exploring the nature of the market for broadband and related services, including whether consumer choice of broadband providers is sufficient to ensure that certain

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Comments at 9; TCA 700 MHz Further Notice Reply Comments at 5; see also CTIA 700 MHz Further Notice Comments at 17-19; Verizon Wireless 700 MHz Further Notice Comments at 46-47; MetroPCS 700 MHz Further Notice Reply Comments at 40; Verizon Wireless 700 MHz Further Notice Reply Comments at 19-20.

⁴⁴³ See, e.g., Verizon Wireless July 24 *Ex Parte* at 2-3; MetroPCS July 16 *Ex Parte* at 1-2; see also CTIA June 29 *Ex Parte* at 2 (open access proposals are premature); cf. Wireless Internet Service Providers Ass'n July 12 *Ex Parte* at 1 (opposed to open access proposals in markets where bidding credits are available, but notes that open access for larger geographic spectrum blocks would provide opportunity for new entrants).

⁴⁴⁴ Verizon Wireless July 24 *Ex Parte* at 7-8.

⁴⁴⁵ Verizon Wireless July 24 *Ex Parte* at 9-12. Verizon Wireless compares the 22 MHz block licensees to the AWS-1 licensees, where open access requirements were not imposed, arguing that spectrum allocation was intended for the same type of service as 700 MHz and therefore these licensees should have the same regulatory requirements.

⁴⁴⁶ AT&T July 20 *Ex Parte*, Attach. at 1-2.

⁴⁴⁷ AT&T July 20 *Ex Parte*, Attach. at 2; but see CTIA June 29 *Ex Parte* at 1-2 (open access proposals effectively remove availability of spectrum to small and rural providers); MetroPCS July 16, 2007 *Ex Parte* at 2.

⁴⁴⁸ Broadband Industry Practices, WC Docket No. 07-52, *Notice of Inquiry*, 22 FCC Rcd 7894 (2007) (*Broadband Practices*).

⁴⁴⁹ *Petition to Confirm a Consumer's Right to Use Internet Communications Software and Attach Devices to Wireless Networks*, RM-11361 (filed Feb. 20, 2007) (*Skype Petition*). Our discussion of the Skype Petition herein is not intended to weigh the merits of Skype's request.

⁴⁵⁰ CTIA 700 MHz Further Notice Comments at 24-25; MetroPCS 700 MHz Further Notice Comments at 40; TIA 700 MHz Further Notice Comments at 8-9; Verizon Wireless 700 MHz Further Notice Comments at 48-49; AT&T 700 MHz Further Notice Reply Comments at 4; CTIA 700 MHz Further Notice Reply Comments at 13; T-Mobile 700 MHz Further Notice Reply Comments at 10; see also CTIA 700 MHz Further Notice Comments at 18; MetroPCS 700 MHz Further Notice Reply Comments at 40.